62. This Further Notice is a permit-but-disclose notice-and-comment rulemaking proceeding. Ex parte presentations are permitted, in accordance with the Commission's rules, provided that they are disclosed as required. 162

2. Initial Regulatory Flexibility Analysis

- 63. As required by the Regulatory Flexibility Act (RFA), 163 the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the expected significant economic impact on small entities by the policies and rules proposed in the Further Notice of Proposed Rulemaking (Further Notice). Written public comments are requested on the IRFA. These comments must be filed by the deadlines for comment on the remainder of the Further Notice, and should have a separate and distinct heading designating them as responses to the IRFA. The Commission will send a copy of the Further Notice, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA) in accordance with the RFA, 5 U.S.C. § 603(a).
- 64. Need for and Objectives of the Proposed Rules. We seek comment on whether requesting carriers may use unbundled shared transport facilities in conjunction with unbundled switching, to originate or terminate interexchange traffic to customers to whom the requesting carrier does not provide local exchange service. We also seek comment on whether similar use restrictions may apply to the use of unbundled dedicated transport facilities. We propose no new rules at this time. In light of comments received in response to the Further Notice, we might issue new rules.
- 65. Legal Basis. The legal basis for any action that may be taken pursuant to the Further Notice is contained in Sections 1, 2, 4, 201, 202, 274, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154, 201, 202, 274, and 303(r).
- 66. Description and Estimate of the Number of Small Entities That May Be Affected by the Further Notice of Proposed Rulemaking. In determining the small entities affected by our Further Notice for purposes of this Supplemental FRFA, we adopt the analysis and definitions set forth in the FRFA in our First Report and Order. The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of

¹⁶² See generally 47 C.F.R. §§ 1.1200, 1.1202, 1.1204, 1.1206.

¹⁶³ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601 et seq., has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

Local Competition Order, 11 FCC Rcd at 16149-57, paras. 1341-60.

small entities that might be affected by proposed rules. The RFA defines the term "small entity" as having the same meaning as the terms "small business," "small organization." and "small business concern" under Section 3 of the Small Business Act. 165 A small business concern is one which: (1) is independently owned and operated: (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by SBA. 166 The SBA has defined a small business for Standard Industrial Classification (SIC) categories 4812 (Radiotelephone Communications) and 4813 (Telephone Communications, Except Radiotelephone) to be an entity with no more than 1,500 employees. 167 Consistent with our FRFA and prior practice, we here exclude small incumbent local exchange carriers (LECs) from the definition of "small entity" and "small business concern." While such a company may have 1500 or fewer employees and thus fall within the SBA's definition of a small telecommunications entity, such companies are either dominant in their field of operations or are not independently owned and operated. Out of an abundance of caution, however, for regulatory flexibility analysis purposes, we will consider small incumbent LECs within this present analysis and use the term "small incumbent LECs" to refer to any incumbent LEC that arguably might be defined by SBA as a small business concern.

- 67. In addition, for purposes of this IRFA, we adopt the FRFA estimates of the numbers of telephone companies, incumbent LECs, and competitive access providers (CAPs) that might be affected by the *First Report and Order*. In the FRFA, we determined that it was reasonable to conclude that fewer than 3,497 telephone service firms are small entity telephone service firms or small incumbent LECs that might be affected. We further estimated that there are fewer than 1,347 small incumbent LECs that might be affected. Finally, we estimated that there are fewer than 30 small entity CAPs that might qualify as small business concerns. 171
- 68. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements. It is probable that any rules issued pursuant to the Further Notice would not

See 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 5 U.S.C. § 632). The Commission may also develop additional definitions that are appropriate to its activities.

^{16 15} U.S.C. § 632.

¹⁶⁷ Id. (citing 13 C.F.R. § 121.201).

See Local Competition Order, 11 FCC Rcd at 16150, para. 1342.

Local Competition Order at 16150, para. 1343.

Local Competition Order at 16151, para. 1345.

Local Competition Order at 16151-52, para. 1347.

change the projected reporting, recordkeeping, or other compliance requirements already adopted in this proceeding.

- 69. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Alternatives Considered. As stated in our FRFA, we determined that our decision to establish minimum national requirements for unbundled elements would likely facilitate negotiations and reduce regulatory burdens and uncertainty for all parties, including small entities and small incumbent LECs. National requirements for unbundling may allow new entrants, including small entities, to take advantage of economies of scale in network design, which may minimize the economic impact of our decision in the First Report and Order. This finding has not been challenged. We do not believe that any rules that may be issued pursuant to the Further Notice will change this finding. We seek comment on this tentative conclusion.
- 70. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules. None.

3. Comment Filing Procedures

- 71. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before October 2, 1997, and reply comments on or before October 17, 1997. To file formally in this proceeding, you must file an original and six copies of all comments, reply comments, and supporting comments. If you want each Commissioner to receive a personal copy of your comments, you must file an original and eleven copies. Comments and reply comments should be sent to the Office of the Secretary, Federal Communications Commission, 1919 M Street, N.W., Room 222, Washington, D.C., 20554, with a copy to Janice Myles of the Common Carrier Bureau, 1919 M Street, N.W., Room 544, Washington, D.C., 20554. Parties should also file one copy of any documents filed in this docket with the Commission's copy contractor, International Transcription Services, Inc., 1231 20th Street, N.W., Washington, D.C., 20036. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center, 1919 M Street, N.W., Room 239, Washington, D.C., 20554.
- 72. Comments and reply comments must include a short and concise summary of the substantive arguments raised in the pleading. Comments and reply comments must also

¹⁷² See, e.g., Local Competition Order at 16161-62, paras. 1374-1375.

¹⁷³ Local Competition Order, 11 FCC Rcd at 16162, para 1376.

comply with Section 1.49 and all other applicable sections of the Commission's Rules.¹⁷⁴ We also direct all interested parties to include the name of the filing party and the date of the filing on each page of their comments and reply comments. All parties are encouraged to utilize a table of contents, regardless of the length of their submission.

- 73. Parties are also asked to submit comments and reply comments on diskette. Such diskette submissions would be in addition to, and not a substitute for, the formal filing requirements addressed above. Parties submitting diskettes should submit them to Janice Myles of the Common Carrier Bureau, 1919 M Street, N.W., Room 544, Washington, D.C., 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible form using MS DOS 5.0 and WordPerfect 5.1 software. The diskette should be submitted in "read only" mode. The diskette should be clearly labelled with the party's name, proceeding, type of pleading (comment or reply comments) and date of submission. The diskette should be accompanied by a cover letter.
- 74. In addition to filing comments with the Secretary, a copy of any comments on the information collections contained herein should be submitted to Judy Boley, Federal Communications Commission, Room 234, 1919 M Street, N.W., Washington, D.C., 20554, or via the Internet to jboley@fcc.gov, and to Timothy Fain, OMB Desk Officer, 10236 NEOB, 725 17th Street, N.W., Washington, D.C., 20503 or via the Internet to fain t@al.eop.gov.

V. ORDERING CLAUSES

- 75. Accordingly, IT IS ORDERED that, pursuant to sections 1-4, 201-205, 214, 251, 252, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201-205, 214, 251, 252, and 303(r), the Third Order on Reconsideration is ADOPTED.
- 76. IT IS FURTHER ORDERED that changes adopted on reconsideration in section III.B. and the rule appendix will be effective 30 days after publication in the Federal Register.
- 77. IT IS FURTHER ORDERED, pursuant to section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and section 1.106 of the Commission's rules, 47 C.F.R. § 1.106 (1995), that the petitions for reconsideration filed by WorldCom, Inc. and the Local Exchange Carriers Coalition are DENIED IN PART and GRANTED IN PART to the extent indicated above.

See 47 C.F.R. § 1.49. However, we require here that a summary be included with all comments and reply comments, regardless of length. This summary may be paginated separately from the rest of the pleading (e.g., as "i, ii").

- 78. IT IS FURTHER ORDERED, that the Commission SHALL SEND a copy of this Third Order on Reconsideration and Further Notice of Proposed Rulemaking, including the associated Supplemental Final Regulatory Flexibility Analysis and Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.
- 79. IT IS FURTHER ORDERED that pursuant to sections 1, 2, 4, 201, 202, 274 and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154, 201, 202, 274, and 303(r), the FURTHER NOTICE OF PROPOSED RULEMAKING IS ADOPTED.

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton Acting Secretary

Appendix A

Final Rules

Part 51-INTERCONNECTION

1. The authority citation for part 51 continues to read as follows:

Authority: Sections 1-5, 7, 201-05, 218,l 225-27, 251-54, 271, 48 Stat. 1070, as amended, 1077; 47 U.S.C. 151-55, 157, 201-05, 218, 225-27, 251-54, 271, unless otherwise noted.

- 2. Paragraph (d)(1) of Section 51.319 is revised to read as follows:
- § 51.319 Specific unbundling requirements.

- (d) Interoffice Transmission Facilities.
 - (1) Interoffice transmission facilities include:
- (i) Dedicated transport, defined as incumbent LEC transmission facilities dedicated to a particular customer or carrier that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunications carriers;
- (ii) Shared transport, defined as transmission facilities shared by more than one carrier, including the incumbent LEC, between end office switches, between end office switches and tandem switches, and between tandem switches, in the incumbent LEC's network;
- 3. Section 51.515 is revised to read as follows:
- § 51.515 Application of access charges.
- (d) Interstate access charges described in part 69 shall not be assessed by incumbent LECs on each element purchased by requesting carriers providing both telephone exchange and exchange access services to such requesting carriers' end users.

August 18, 1997

SEPARATE STATEMENT OF CHAIRMAN REED HUNDT

RE: Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Third Order on Reconsideration and Further Notice of Proposed Rulemaking

The Commission today reaffirms and clarifies a very important aspect of our Local Competition Order: the ability of a competitive local exchange carrier to obtain transport on a shared basis from the incumbent local exchange carrier. More fundamentally, this decision highlights the importance we place on incumbents making available to new entrants their network elements on a combined basis -- a combination sometimes referred to as the UNE platform.

In the Telecommunications Act of 1996, Congress mandated that new entrants into the formerly monopolized local exchange market have the ability to choose any or all of three entry strategies: interconnection, resale and unbundled network elements. Congress correctly foresaw that new entrants would need these flexible strategies if they are to conspete successfully with the incumbents and their extraordinary economies of scale and scope.

In its decision last month, the Eighth Circuit explicitly affirmed our authority under the Act to define unbundled network elements. This is a very important aspect of our local competition policies. Where the purpose or effect of moves by an incumbent LEC to break apart currently combined elements is to create a barrier to competition, we will take action to tear down or prevent the erection of such barriers.

TAB B

FCC 96-325

Before the Federal Communications Commission Washington, DC 20554

In the Matter of)	
Implementation of the Local Competition) .	CC Docket No. 96-98
Provisions in the Telecommunications Act)	
of 1996))	
Interconnection between Local Exchange)	CC Docket No. 95-185
Carriers and Commercial Mobile Radio)	
Service Providers)	
)	

FIRST REPORT AND ORDER

Adopted: August 1, 1996 Released: August 8, 1996

By the Commission: Chairman Hundt and Commissioners Quello. Ness, and Chong issuing separate statements.

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a commercial basis to consumers. Our interpretation of the term "provision" finds support in the definition of the term "network element." That definition provides that the type of information that may constitute a feature or function includes information "used in the transmission, routing or other provision of a telecommunications service." Since "transmission" and "routing" refer to physical delivery, the phrase "or other provision of a telecommunications service" goes beyond mere physical delivery.

- 262. We conclude that the definition of the term "network element" broadly includes all "facilit[ies] or equipment used in the provision of a telecommunications service," and all "features, functions, and capabilities that are provided by means of such facility or equipment, including subscriber numbers, databases, signaling systems, and information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service." This definition thus includes, but is not limited to, transport trunks, call-related databases, software used in such databases, and all other unbundled elements that we identify in this proceeding. The definition also includes information that incumbent LECs use to provide telecommunications functions commercially, such as information required for pre-ordering, ordering, provisioning, 563 billing, and maintenance and repair services. This interpretation of the definition of the term "network element" will serve to guide both the Commission and the states in evaluating further unbundling requirements beyond those we identify in this proceeding.
- 263. We disagree with those incumbent LECs which argue that features that are sold directly to end users as retail services, such as vertical features, cannot be considered elements within incumbent LEC networks. ⁵⁶⁴ If we were to conclude that any functionality sold directly to end users as a service, such as call forwarding or caller ID, cannot be defined as a network element, then incumbent LECs could provide local service to end users by selling them unbundled loops and switch elements, and thereby entirely evade the unbundling

⁵⁵⁹ Id

¹⁶⁰ Id

⁵⁶¹ See infra, V.J.

³⁶² See infra, Section V.J.5, for a definition of pre-ordering services.

⁵⁶³ The term "provisioning" includes installation.

⁵⁶⁴ See infra. Section V.J. discussing vertical features and noting that the Illinois Commission has rejected arguments that vertical features cannot be incorporated into network elements.

2. Comments

266. A number of parties agree with our interpretation that the phrase "access to network elements on an unbundled basis" means that incumbent LECs must provide access to the functionality of different elements on a separate basis, and must charge separate fees. In contrast, PacTel argues that the 1996 Act does not require the provision of an element's functionality, but merely requires incumbent LECs to provide elements in a way that allows carriers to combine them and offer a telecommunications service. PacTel nevertheless acknowledges that agreements will likely allow for the provision of an element's functionality. The provision of an element's functionality.

267. Bell Atlantic and USTA argue that "access" to unbundled elements can only be achieved by interconnecting, under the terms of section 251(c)(2), a requesting carrier's facilities to the facilities of the incumbent LEC at a particular point.⁵⁷²

3. Discussion

268. We conclude that we should adopt our proposed interpretation that the terms "access" to network elements "on an unbundled basis" mean that incumbent LECs must provide the facility or functionality of a particular element to requesting carriers, separate from the facility or functionality of other elements, for a separate fee. We further conclude that a telecommunications carrier purchasing access to an unbundled network facility is entitled to exclusive use of that facility for a period of time, or when purchasing access to a feature, function, or capability of a facility, a telecommunications carrier is entitled to use of that feature, function, or capability for a period of time. The specified period may vary depending on the terms of the agreement between the incumbent LEC and the requesting carrier. The ability of other carriers to obtain access to a network element for some period of time does not relieve the incumbent LEC of the duty to maintain, repair, or replace the unbundled network element.⁵⁷³ We reject PacTel's interpretation of the terms quoted above

⁵⁷⁰ BellSouth comments at 34: MFS comments at 41; Cable & Wireless comments at 26-27; MCI comments at 12-20; Ericsson comments at 4; District of Columbia Commission comments at 22; Nextel comments at 8; USTA comments at 26; Colorado Commission comments at 27; Pennsylvania Commission comments at 24-25; GTE comments at 27; Florida Commission comments at 19; GST comments at 19.

³⁷¹ PacTel comments at 44-47.

⁵⁷² Bell Atlantic comments at 13; USTA comments at 62-63; see also GTE comments at 74-79; Letter from Antoinette Cook Bush, Counsel for Ameritech, to William F. Caton, Secretary, FCC, July 10, 1996; cf. DoJ comments at 45 (the requirement in section 251(c)(2) that carriers must offer either local exchange or exchange access services does not apply to the carriers offering services using unbundled elements).

We clarify that title to unbundled network elements will not shift to requesting carriers.

any technically compatible equipment the requesting carriers own. We also conclude that section 251(c)(3) requires incumbent LECs to provide requesting carriers with all of the functionalities of a particular element, so that requesting carriers can provide any telecommunications services that can be offered by means of the element. We believe this interpretation provides new entrants with the requisite ability to use unbundled elements flexibly to respond to market forces, and thus is consistent with the procompetitive goals of the 1996 Act.

293. We agree with AT&T and Comptel that the quoted text in section 251(c)(3) bars incumbent LECs from separating elements that are ordered in combination, unless a requesting carrier specifically asks that such elements be separated. We also conclude that the quoted text requires incumbent LECs, if necessary, to perform the functions necessary to combine requested elements in any technically feasible manner either with other elements from the incumbent's network, or with elements possessed by new entrants, subject to the technical feasibility restrictions discussed below. We adopt these conclusions for two reasons. First in practice it would be impossible for new entrants that lack facilities and information about the incumbent's network to combine unbundled elements from the incumbents' network without the assistance of the incumbent. If we adopted NYNEX's proposal, we believe requesting carriers would be seriously and unfairly inhibited in their ability to use unbundled elements to enter local markets. We therefore reject NYNEX's contention that the statute requires requesting carriers, rather than incumbents, to combine elements. We do not believe it is possible that Congress, having created the opportunity to enter local telephone markets through the use of unbundled elements, intended to undermine that opportunity by imposing technical obligations on requesting carriers that they might not be able to readily meet.

294. Second, given the practical difficulties of requiring requesting carriers to combine elements that are part of the incumbent LEC's network, we conclude that section 251(c)(3) should be read to require incumbent LECs to combine elements requested by carriers. More specifically, section 251(c)(3) provides that incumbent LECs must provide unbundled elements "in a manner that allows requesting carriers to combine them" to provide a telecommunications service. We believe this phrase means that incumbents must provide unbundled elements in a way that enables requesting carriers to combine them to provide a service. The phrase "allows requesting carriers to combine them," does not impose the obligation of physically combining elements exclusively on requesting carriers. Rather, it permits a requesting carrier to combine the elements if the carrier is reasonably able to do so. If the carrier is unable to combine the elements, the incumbent must do so.

⁶²⁰ In this context, we conclude that the term "combine" means connecting two or more unbundled network elements in a manner that would allow a requesting carrier to offer the telecommunications service it seeks to offer.

regulation, preserve and advance universal service, remove statutory, regulatory and economic impediments to new entry, and provide states with flexibility.⁷⁰⁴

327. Finally, NYNEX argues that carriers should not be permitted to offer services to consumers by combining unbundled elements and resold services because the different rates for unbundled elements and resale of services would allow for arbitrage. Comptel and Sprint counter, however, that the 1996 Act does not prohibit the combined use of unbundled elements and resold services. Comptel further contends that Congress intended to provide new entrants with maximum flexibility in connection with opportunities to enter local telephone markets and thus it would be contrary to Congressional intent, as well as anticompetitive, if we prohibited carriers from using a combination of unbundled elements and services available for resale. To a service available for resale.

3. Discussion

- 328. The language of section 251(c)(3) is cast exclusively in terms of obligations imposed on incumbent LECs, and it does not discuss, reference, or suggest a limitation or requirement in connection with the right of new entrants to obtain access to unbundled elements. We conclude, therefore, that Congress did not intend section 251(c)(3) to be read to contain any requirement that carriers must own or control some of their own local exchange facilities before they can purchase and use unbundled elements to provide a telecommunications service. We note that the Illinois Commission has reached the same conclusion. 707
- 329. We reject the arguments advanced by Bell Atlantic and NYNEX that the language of section 251(c)(3) requires carriers seeking access to unbundled elements to own some local exchange facilities, and that this serves to distinguish section 251(c)(3) from section 251(c)(4). The "at any technically feasible point" language in section 251(c)(3) refers to points in an incumbent LEC's network where new entrants may obtain access to elements. It does not, however, require that new entrants interconnect local exchange facilities which they own or control at that technically feasible access point. If we were to conclude otherwise, then new entrants would be prohibited from requesting two network elements that



⁷⁰⁴ Illinois Commission comments at 38.

⁷⁰⁵ NYNEX comments at 38-39.

⁷⁰⁶ CompTel reply at 20-22; Sprint comments at 23-28.

⁷⁰⁷ AT&T Communications of Illinois, Inc. et. al., Petition for a Total Local Exchange Wholesale Service Tariff from Illinois Bell Telephone Company, Nos. 95-0458 and 95-0531 (consol.) at 63-65 (Illinois Commission June 26, 1996).

are connected to each other because the new entrant would be required to connect a single network element to a facility of its own. The 1996 Act, however, does not impose any limitations on carriers' ability to obtain access to unbundled network elements. Moreover, we conclude that Congress did not intend to limit access to unbundled elements in this manner because such a limit would seriously inhibit the ability of potential competitors to enter local markets through the use of unbundled elements, and thus would retard the development of local exchange competition. We also reject NYNEX's argument that the phrase "such telecommunications service" excludes services provided by the incumbent. This interpretation is inconsistent with the 1996 Act's definition of a telecommunications service, which includes all telecommunications services provided by an incumbent.

- 330. We also reject the argument that language in the Joint Explanatory Statement requires us to conclude that carriers must own facilities to obtain access to unbundled elements. Congress may have recognized that carriers that own some of their own facilities will more likely benefit by entering local markets through unbundled elements rather than resale, but this consideration does not imply that carriers must own their own facilities to obtain access to unbundled elements.⁷⁰⁸
- 331. We are not persuaded that, in order to give meaning and effect to section 251(c)(4), we must require new entrants to own some local exchange facilities in order to obtain access to unbundled elements. We disagree with the premise that no carrier would consider entering local markets under the terms of section 251(c)(4) if it could use recombined network elements solely to offer the same or similar services that incumbents offer for resale. We believe that sections 251(c)(3) and 251(c)(4) present different opportunities, risks, and costs in connection with entry into local telephone markets, and that these differences will influence the entry strategies of potential competitors. We therefore find that it is unnecessary to impose a limitation on the ability of carriers to enter local markets under the terms of section 251(c)(3) in order to ensure that section 251(c)(4) retains functional validity as a means to enter local phone markets.
- 332. The principal distinction between sections 251(c)(3) and 251(c)(4), in terms of the opportunities each section presents to new entrants, is that carriers using solely unbundled elements, compared with carriers purchasing services for resale, will have greater opportunities to offer services that are different from those offered by incumbents. More specifically, carriers reselling incumbent LEC services are limited to offering the same service an incumbent offers at retail. This means that resellers cannot offer services or products that incumbents do not offer. The only means by which a reseller can distinguish the services it offers from those of an incumbent is through price, billing services, marketing efforts, and to some extent, customer service. The ability of a reseller to differentiate its products based on

⁷⁰² See Joint Explanatory Statement at 148.

price is limited, however, by the margin between the retail and wholesale price of the product.

- 333. In contrast, a carrier offering services solely by recombining unbundled elements can offer services that differ from those offered by an incumbent. For example, some incumbent LECs have capabilities within their networks, such as the ability to offer Centrex, which they do not use to offer services to consumers. Carriers purchasing access to unbundled elements can offer such services. Additionally, carriers using unbundled elements can bundle services that incumbent LECs sell as distinct tariff offerings, as well as services that incumbent LECs have the capability to offer, but do not, and can market them as a bundle with a single price. The ability to package and market services in ways that differ from the incumbent's existing service offerings increases the requesting carrier's ability to compete against the incumbent and is likely to benefit consumers. Additionally, carriers solely using unbundled network elements can offer exchange access services. These services, however, are not available for resale under section 251(c)(4) of the 1996 Act. These services.
- 334. If a carrier taking unbundled elements may have greater competitive opportunities than carriers offering services available for resale, they also face greater risks. A carrier purchasing unbundled elements must pay for the cost of that facility, pursuant to the terms and conditions agreed to in negotiations or ordered by states in arbitrations.711 It thus faces the risk that end-user customers will not demand a sufficient number of services using that facility for the carrier to recoup its cost. (Many network elements can be used to provide a number of different services.) A carrier that resells an incumbent LEC's services does not face the same risk. This distinction in the risk borne by carriers entering local markets through resale as opposed to unbundled elements is likely to influence the entry strategies of various potential competitors. Some new entrants will be unable or unwilling to bear the financial risks of entry by means of unbundled elements and will choose to enter local markets under the terms of section 251(c)(4) irrespective of the fact that they can obtain access to unbundled elements without owning any of their own facilities. 112 Moreover, some markets may never support new entry through the use of unbundled elements because new entrants seeking to offer services in such markets will be unable to stimulate sufficient demand to recoup their investment in unbundled elements. Accordingly, in these markets

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⁷⁰⁹ See AT&T comments at 25-31.

⁷¹⁰ See infra. Section VII; see also Letter from Bernard J. Ebbers, President LDDS WorldCom, to Rachelle B. Chong, Commissioner, Federal Communications Commission, July 11, 1996.

⁷¹¹ See infra. Section VII, describing the terms under which new entrants will pay for the cost of unbundled elements.

⁷¹² See, e.g., AT&T reply at 13-20.

carriers will enter through the resale of incumbent LEC services, irrespective of the fact that they could enter exclusively through the use of unbundled elements.⁷¹³

- 335. We are not persuaded by the argument set forth by Ameritech, NYNEX, and MFS that allowing carriers to use solely recombined network elements would eviscerate the joint marketing restriction in section 271(e)(1). It is true that the terms of section 271(e) do not restrict joint marketing through the use of unbundled elements pursuant to section 251(c)(3). As discussed above, differences in opportunities and risk will cause some new entrants to consider entering local telephone markets through resale of incumbent LEC services, even if they could enter solely through the use of unbundled elements. Thus, we conclude that section 271(e)(1) will impose a meaningful limitation on joint marketing.
- 336. We note, moreover, that the 1996 Act does not prohibit all forms of joint marketing. For example, it does not prohibit carriers who own local exchange facilities from jointly marketing local and interexchange service. Nor does it prohibit joint marketing by carriers who provide local exchange service through a combination of local facilities which they own or possess, and unbundled elements. Because the 1996 Act does not prohibit all forms of joint marketing, we see no principled basis for reading into section 271(e)(1) a further limitation on the ability of carriers to jointly market local and long distance services without concluding that this section prohibits all forms of joint marketing. In other words, we see no basis upon which we could conclude that section 271(e)(1) restricts joint marketing of long distance services, and local services provided solely through the use of unbundled network elements, without also concluding that the section restricts the ability of carriers to jointly market long distance services and local services that are provided through a combination of a carriers' own facilities and unbundled network elements. Moreover, we do not believe that we have the discretion to read into the 1996 Act a restriction on competition which is not required by the plain language of any of its sections.
- 337. We also reject the argument advanced by BellSouth and Ameritech that allowing carriers to use solely unbundled elements to provide services available through resale would allow carriers to evade a possible prohibition, which is reserved to the discretion of the states,

⁷¹³ See, e.g., Comptel reply at 13-16.

⁷¹⁴ Section 271(e)(1) provides that "[u]ntil a Bell operating company is authorized pursuant to subsection (d) to provide interLATA services in an in-region State, or until 36 months have passed since the date of enactment... a telecommunications carrier that serves greater than 5 percent of the Nation's presubscribed access lines may not jointly market in such State telephone exchange service obtained from such company pursuant to section 251(c)(4) with interLATA services." 47 U.S.C. § 271(e)(1).

⁷¹⁵ See also AT&T reply at 14-15 (the added risk of unbundled elements also means that new entrants are not circumventing section 271's joint marketing restriction because the additional risk justifies allowing carriers more flexibility to jointly market services); LDDS reply at 28-30.

on the sale of certain services to certain categories of consumers. Under section 251(c)(4)(B) states are permitted to restrict resellers from offering certain services to certain consumers, in the same manner that states restrict incumbent LECs. For example, states that prohibit incumbent LECs from selling to business consumers residential services priced below cost have the ability to restrict resellers from selling such services to business consumers.

- 338. We do not believe, however, that carriers using solely unbundled elements to provide local exchange services will be able to evade any potential restrictions states may impose under section 251(c)(4)(B). In this section Congress granted the states the discretion to impose certain limited restrictions on the sale of services available for resale. It did not, however, grant states, in section 251(c)(3), the same discretion to impose similar restrictions on the use of unbundled elements. Accordingly, we are not persuaded that allowing carriers to use solely unbundled elements to provide services that incumbent LECs offer for resale would allow competing carriers to evade a possible marketing restriction that Congress intended to reserve to the discretion of the states.
- 339. We agree with those commenters who argue that it would be administratively impossible to impose a requirement that carriers must own some of their own local exchange facilities in order to obtain access to unbundled elements, and they must use these facilities, in combination with unbundled elements, for the purpose of providing local services. We conclude that it would not be possible to identify the elements carriers must own without creating incentives to build inefficient network architectures that respond not to marketplace factors, but to regulation. We further conclude that such a requirement could delay possible innovation. These effects would diminish competition for local telephone services, and thus any local exchange facilities requirement would be inconsistent with the 1996 Act's goals of promoting competition. Moreover, if we imposed a facilities ownership requirement that attempted to avoid these competitive pitfalls, it would likely be so easy to meet it would ultimately be meaningless.
- 340. We reject the argument that requiring carriers to own some local exchange facilities would promote competition for local exchange services, or that we should impose such a requirement for other policy reasons. To the contrary, we conclude that allowing carriers to use unbundled elements as they wish, subject only to the maintenance of the key elements of the access charge regime, described below at section VII, will lead to more efficient competition in local phone markets. If we were to limit access to unbundled network elements to those markets where carriers already own, or could efficiently build, some local exchange facilities, we would limit the ability of carriers to enter local markets under the pricing standard for unbundled elements to those markets that could efficiently support duplication of some or all of the incumbent LECs' networks. We believe that such a result could diminish competition, and that allowing new entrants to take full advantage of

⁷¹⁶ 47 U.S.C. § 251(c)(4)(B).

incumbent LECs' scale and scope economies will promote more rapid and efficient entry and will result in more robust competition.

341. Finally, we conclude that a new entrant may offer services to one group of consumers using unbundled network elements, and it may offer services to a separate group of consumers by reselling an incumbent LEC's services. With the exception noted in Section VII, *infra*, we do not address the issue of whether the 1996 Act permits a new entrant to offer services to the same set of consumers through a combination of unbundled elements and services available for resale.

I. Provision of Interexchange Services Through The Use of Unbundled Network Elements

1. Background

- 342. In the NPRM, we tentatively concluded that interexchange carriers are telecommunications carriers, and thus such carriers are entitled to access to unbundled elements under the terms of section 251(c)(3). We also tentatively concluded that carriers may request unbundled elements for purposes of originating and terminating toll services, in addition to any other services they seek to provide, because section 251(c)(3) provides that carriers may request unbundled elements to provide a "telecommunications service," and interexchange services are a telecommunications service. 717
- 343. In the NPRM, we sought comment on whether the 1996 Act permits carriers to use unbundled elements to provide exchange access services only, or whether carriers seeking to provide exchange access services using unbundled elements must provide local exchange service as well. We premised the latter view on the definition of the term "network element." as a facility and not a service, and on the pricing standard under section 252(d)(1) that requires network elements to be priced based on economic costs (rather than jurisdictionally separated costs.)⁷¹⁸ We also sought comment on whether allowing carriers to purchase unbundled elements to provide exchange access services exclusively would be inconsistent with the terms of sections 251(i) and 251(g) and, further, whether this would result in a fundamental jurisdictional shift of the administration of interstate access charges to state jurisdictions.⁷¹⁹

⁷¹⁷ NPRM at paras. 159, 163.

[&]quot;* See supra, Section V.C. and infra, Section VII.

¹⁹ NPRM at para. 164.

information to interconnected carriers, and would also prohibit incumbent LECs from claiming a proprietary right to signaling protocols. ³⁰⁶

c. Discussion

(1) Local Switching Capability

- 410. We conclude that incumbent LECs must provide local switching as an unbundled network element. The record supports a finding that it is technically feasible for incumbent LECs to provide access to an unbundled local switching element, and that denying access to a local switching element would substantially impair the ability of many competing carriers to provide switched telecommunications services. We also note that section 271 requires BOCs to offer or provide "[l]ocal switching unbundled from transport, local loop transmission, or other services" as a precondition to providing in-region interLATA services. As discussed below, we identify a local switching element that includes the basic function of connecting lines and trunks as well as vertical switching features, such as custom calling and CLASS features. We agree with the Illinois Commission that defining the switching element in this way will permit competitors to compete more effectively by designing new packages and pricing plans. 909
- 411. In the United States, there are over 23,000 central office switches, the vast majority of which are operated by incumbent LECs.⁹¹⁰ It is unlikely that consumers would receive the benefits of competition quickly if new entrants were required to replicate even a small percentage of incumbent LECs' existing switches prior to entering the market. The Illinois Commission staff presented evidence in a recent proceeding indicating that it takes

⁹⁰⁶ Wyoming Commission comments at 24.

^{907 47} U.S.C. § 271(c)(2)(B)(vi).

⁹⁰⁸ Custom calling features, such as call waiting, three-way calling, and call forwarding, are switch-based calling functions. CLASS features, such as caller ID, are number translation services that are based on the availability of interoffice signaling.

AT&T Communications of Illinois, Petition for a Total Local Exchange Wholesale Service Tariff from Illinois Bell Telephone Company Pursuant to Section 13-505.5 of the Illinois Public Utilities Act. Order, Docket Nos. 95-0458 and 95-0531, June 26, 1996 (Illinois Wholesale Order) at 63-66.

⁹¹⁰ Statistics of Communications Common Carriers. Federal Communications Commission. 1994/1995 Edition, at Table 2.4. This figure is derived from carriers filing with the FCC, which represent approximately 92 percent of the industry.

412. We define the local switching element to encompass line-side and trunk-side facilities plus the features, functions, and capabilities of the switch.⁹¹² The line-side facilities include the connection between a loop termination at, for example, a main distribution frame (MDF), and a switch line card. 913 Trunk-side facilities include the connection between, for example, trunk termination at a trunk-side cross-connect panel and a trunk card. The "features, functions, and capabilities" of the local switch include the basic switching function of connecting lines to lines, lines to trunks, trunks to lines, trunks to trunks. It also includes the same basic capabilities that are available to the incumbent LEC's customers, such as a telephone number, directory listing, dial tone, signaling, and access to 911, operator services, and directory assistance. 914 In addition, the local switching element includes all vertical features that the switch is capable of providing, including custom calling, CLASS features, and Centrex, as well as any technically feasible customized routing functions. Thus, when a requesting carrier purchases the unbundled local switching element, it obtains all switching features in a single element on a per-line basis. A requesting carrier will deploy individual vertical features on its customers' lines by designating, via an electronic ordering interface. which features the incumbent LEC is to activate for particular customer lines.

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⁹¹¹ Supplemental Rebuttal Testimony of Jake Jennings, Office of Policy and Planning, Illinois Commerce Commission, ICC Staff Ex. 1.04, Docket No. 95-0458, at 11-12 (Mar. 11, 1996).

⁹¹² The NPRM used the terms "switch platform" and "port," as they had been developed by the Illinois and New York Commissions, respectively, to describe two possible approaches to establishing an unbundled local switching element. Parties commenting on the unbundled switching element attributed a variety of functionalities to each of these terms. To avoid confusion, we will not use these terms in discussing the unbundled local switching element. Instead, we will address commenters' proposals according to the functionality that they recommend be included in the definition of an unbundled local switching element.

⁹¹³ A line card is a plug-in electronic printed circuit card that operates ringing, holding, and other features associated with one or several telephone lines.

⁹¹⁴ Purchasing the local switching element does not entitle a requesting carrier to connect its own AIN call processing database to the incumbent LEC's switch, either directly or via the incumbent LEC's signal transfer point or database. Section V.I.4, which discusses the unbundling of incumbent LECs' signaling systems and databases. We also note that E911 and operator services are further unbundled from local switching. See infra Section V.I.6.

- 413. We disagree with commenters who argue that vertical switching features should be classified exclusively as retail services, available to competing providers only through the resale provision of section 251(c)(4). The 1996 Act defines network element as "a facility or equipment used in the provision of a telecommunications service" and "the features, functions, and capabilities that are provided by means of such facility or equipment. "916 Vertical switching features, such as call waiting, are provided through operation of hardware and software comprising the "facility" that is the switch, and thus are "features" and "functions" of the switch. 917 We note that the Illinois Commission recently defined an unbundled local switching element to include vertical switching features. Although we find that vertical switching features should be available to competitors through the resale provision of section 251(c)(4), we reject the view that Congress intended for section 251(c)(4) implicitly to remove vertical switching features from the definition of "network element." Therefore, we find that vertical switching features are part of the unbundled local switching element.
- 414. At this time we decline to require further unbundling of the local switch into a basic switching element and independent vertical feature elements. Such unbundling does not appear to be necessary to promote local competition. Indeed, most potential local competitors do not recommend that vertical switching features be available as separate network elements. MCI, AT&T and LDDS believe that such features should be available to new entrants as part of the local switching element. We also note that additional unbundling of the local switch would not result in a practical difference in the way the local switching element is provisioned. As discussed below, when a competing provider orders the unbundled basic switching element for a particular customer line, it will designate which vertical features

⁹¹³ Section 251(c)(4)(A) requires incumbent LECs "to offer for resale at wholesale rates any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers." 47 U.S.C. § 251(c)(4)(A).

^{916 47} U.S.C. § 153(29).

⁹¹⁷ In some cases vertical features may be provided using hardware and software external to the actual switch. In those instances, the functionality of such external hardware and software is a separate element under section 251(c)(3), and is available to competing providers. See infra Section V.I.4, discussing unbundled signaling and databases.

⁹¹⁸ Illinois Wholesale Order at 63-66.

⁹¹⁹ See supra Section V.H. rejecting arguments that services available for resale under section 251(c)(4) cannot be provided via unbundled elements.

⁹²⁰ See infra Section VII.C.2.b.2, concerning the pricing of an unbundled switching element.

⁹²¹ AT&T June 28 Ex Parie at 1-2; MCI comments at 31; LDDS comments at 44.

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should be activated by the incumbent LEC for that line. In addition, the record indicates that the incremental costs associated with vertical switching features on a per-line basis may be quite small, 922 and may not justify the administrative difficulty for the incumbent LEC or the arbitrator to determine a price for each vertical element. Thus, states can investigate. in arbitration or other proceedings, whether vertical switching features should be made available as separate network elements. We will continue to review and revise our rules in this area as necessary.

- 415. We conclude that providing access to an unbundled local switching element at a LEC central office is technically feasible. We are not persuaded by the argument that shared use of an unbundled switching element would jeopardize network security and reliability by permitting competitors independently to activate and deactivate various switching features. A competing provider will purchase and obtain the local switching element the same way it obtains an unbundled local loop, that is, by ordering, via electronic interfaces.923 the local switching element and particular vertical switching features. 924 The incumbent LEC will receive the order and activate (or deactivate) the particular features on the customer line designated by the competing provider. Consequently, the incumbent LEC is not required to relinquish control over operations of the switch.
- 416. We also reject the argument that a definition of local switching that incorporates shared use of a local switch would involve physical partitioning of the switch. 925 The requirements we establish for local switch unbundling do not entail physical division of the switch, and consequently do not impose the inefficiency or technical difficulties identified by some commenters.
- 417. Nor are we persuaded by the arguments of some incumbent LECs that an unbundled switching element based on shared use of the local switch is technically infeasible because incumbent LECs lack significant excess capacity at any given time. Initially, many requests for local switching elements from competitors will likely result from the loss of customers by the incumbent LEC. Thus, at least initially, an increase in the use of a local switch by the requesting carrier is not likely to lead to an enormous, immediate increase in switch use overall. If incumbent LECs and competing providers believe that they would

^{*22} LDDS comments at 57, Letter from Bruce Cox, Government Affairs Director, AT&T, to Elliot Maxwell, FCC, June 25, 1996 (AT&T June 25 Ex Parte).

⁹²³ See infra Section V.I.4. infra, addressing requesting carriers' access to incumbent LECs' ordering and provisioning systems.

⁹²⁴ Section V.I.5 addresses the arrangements for ordering unbundled network elements.

⁹²⁵ U S West comments at 55-57.

benefit by quantifying their anticipated demand for switch resources, they are free to do so in the negotiation and arbitration processes. Such planning may be necessary when a competitor anticipates that usage of the local switching element by its customers will place demands on the incumbent LEC's switch that exceed the usage levels anticipated by the incumbent LEC.⁹²⁶

418. We conclude that customized routing, which permits requesting carriers to designate the particular outgoing trunks that will carry certain classes of traffic originating from the competing provider's customers, is technically feasible in many LEC switches. Customized routing will enable a competitor to direct particular classes of calls to particular outgoing trunks, which will permit a new entrant to self-provide, or select among other providers of, interoffice facilities, operator services, and directory assistance.927 Bell Atlantic notes that customized routing is generally technically feasible for local calling, although it notes that the technology and capacity constraints vary from switch to switch. 928 SBC contends that customized routing is technically infeasible for older switches, such as the 1AESS switch. 929 AT&T acknowledges that, although the ability to establish customized routing in 1AESS switches may be affected by the "call load" in each office, only 9.8% of the switches used by the seven RBOCs, GTE and SNET are 1AESS switches. 930 We recognize that the ability of an incumbent LEC to provide customized routing to a requesting carrier will depend on the capability of the particular switch in question. Thus, our requirement that incumbent LECs provide customized routing as part of the "functionality" of the local switching element applies, by definition, only to those switches that are capable of performing customized routing. An incumbent LEC must prove to the state commission that customized routing in a particular switch is not technically feasible.

⁹²⁶ Bell Atlantic, for example, notes that a competitor's service or pricing packages could stimulate greater switch usage than previously experienced by the incumbent. Letter from Patricia Koch, Assistant Vice President, Bell Atlantic, to William Caton, Acting Secretary, FCC, June 21, 1996 (Bell Atlantic June 21 Ex Parte).

⁹²⁷ See, e.g., AT&T June 28 Ex Parte. In addition, we note that the Illinois Commission recently directed Ameritech and Centel to permit a carrier purchasing wholesale local exchange service to designate a provider of operator services and directory assistance other than that of the incumbent LEC. Such access is accomplished through the routing of such calls from the incumbent LEC's switch to the competing provider of the operator service or directory assistance. See Illinois Wholesale Order at 45.

Pare Letter from Patricia Koch. Assistant Vice President. Bell Atlantic, to William Caton, Acting Secretary, FCC, June 24, 1996 (Bell Atlantic June 24 Ex Parte); see also BellSouth comments at 41-42 n.89 (the ability to provide customized routing depends on the quantity of customized routing requests from other competitors).

⁹²⁹ SBC comments at 41-42.

⁹³⁰ Letter from Bruce Cox, Government Affairs Director, AT&T, to William F. Caton, Secretary, FCC, July 11, 1996 (AT&T July 11 Ex Parte).

419. Section 251(d)(2)(A) requires the Commission, in determining which network elements should be made available to competing providers, to consider "whether access to such network elements as are proprietary in nature is necessary."931 To withhold a proposed network element from a competing provider, an incumbent LEC must demonstrate that the element is proprietary and that gaining access to that element is not necessary because the competing provider can use other, nonproprietary elements in the incumbent LEC's network to provide service.932 U S West asserts that switch unbundling could raise concerns involving, among other things, "licensing of intellectual property." It cites a request by one interconnector to be the exclusive provider of particular features in U S West's generic switching software. 933 Bell Atlantic states that it is not at liberty to sub-license the software that operates vertical switching features.⁹³⁴ We note, however, that these incumbent LECs do not object to providing vertical switching functionalities to requesting carriers under the resale provision of section 251(c)(4). 935 In addition, the vast majority of parties that discuss unbundled local switching do not raise proprietary concerns with the unbundling of either basic local switching or vertical switching features. Even if we accept the claim of U S West and Bell Atlantic that vertical features are proprietary in nature, these carriers do not meet the second consideration in our section 251(d)(2)(A) standard, which requires an incumbent LEC to show that a new entrant could offer the proposed telecommunications service through the use of other, nonproprietary elements in the incumbent LEC's network. 936 Accordingly, we find that access to unbundled local switching is clearly "necessary" under our interpretation of section 251(d)(2)(A). 937

420. Section 251(d)(2)(B) directs the Commission to consider whether the failure to provide access to an unbundled element "would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer." We have interpreted

^{931 47} U.S.C. § 251(d)(2)(A).

⁹³² See supra Section V.E.

⁹³³ U S West comments at 55 n.117.

⁹³⁴ Bell Atlantic comments, Albers Attachment at 17-18.

⁹³⁵ U S West reply at 26-27; Bell Atlantic comments at 26.

⁹³⁶ See supra Section V.E.

⁹³⁷ Id

^{938 47} U.S.C. § 251(d)(2)(B).

the term "impair" to mean either increased cost or decreased service quality that would result from using network elements of the incumbent LEC other than the one sought. SBC and MFS contend that access to unbundled local switching may not be essential for new entrants because competitors are likely to deploy their own switches. These parties present no evidence that competitors could provide service using another element in the LEC's network at the same cost and at the same level of quality. In addition, most commenters that address this issue generally argue that local switching is essential for the provision of competing local service, and we agree. We thus conclude that a requesting carrier's ability to offer local exchange services would be impaired, if not thwarted, without access to an unbundled local switching element.

421. Section 251(c)(3) requires that incumbent LECs provide access to unbundled network elements on terms and conditions that are "just, reasonable, and nondiscriminatory." We agree with CompTel and LDDS that new entrants will be disadvantaged if customer switchover is not rapid and transparent. We also note that the Michigan Commission has recognized the significance of customer switchover intervals and has directed Ameritech and GTE to file proposals on how they will "ensure the equal availability of expeditious processing of local, interLATA, and intraLATA carrier changes." Therefore, we require incumbent LECs to switch over customers for local service in the same interval as LECs currently switch end users between interexchange carriers. This requirement applies to switchovers that only require the incumbent LEC to make changes to software. Switchovers that require the incumbent LEC to make physical modifications to its network, such as connecting a competitor's loop to its switch, are not subject to this requirement, and instead are governed by our terms and conditions for all unbundled elements. Today, incumbent LECs routinely change customers' presubscribed interexchange carriers quickly and transparently, thereby contributing to the competitiveness of the interexchange market. We

⁹³⁹ See supra Section V.E.

⁹⁴⁶ SBC reply at 23; MFS comments at 46.

⁹⁴¹ See, e.g., LDDS reply at 18 (unbundled local switching is "critical" to local competition); TIA comments at 18; AT&T Mar. 21 Letter at 17-18.

^{942 47} U.S.C. § 251(c)(3).

⁹⁴³ In the Matter, On the Commission's Own Motion. To Establish Permanent Interconnection Arrangements Between Basic Local Exchange Service Providers, Opinion and Order, Mich. Pub. Serv. Comm'n, Case No. U-10860, at 36-37 (June 5, 1996).

⁹⁴⁴ See supra Section V.G., discussing provisioning intervals for unbundled network elements.